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HIT AINES & BOISBRUN 17038729311

NO. 932

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DOCKET NO. : HUGGINS-6

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Harold Huggins

Serial No.:

09/715,615

Filed:

November 17, 2000

For:

METHOD FOR MAKING A RADIO FREQUENCY COMPONENT
AND COMPONENT PRODUCTION THEREBY

Grp./A.U.:

1765

Examiner:

Vinh, Lan

Honorable Commissioner of Patents
Washington, D.C. 20231

Sir:

I hereby certify that this correspondence is being facsimile
transmitted to the Patent and Trademark Office (Fax No. (703)
872-9311) on February 4, 2003.

Elizabeth Schumacker

Typed or printed name of person signing this certificate

Signature

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REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. § 1.116

In response to the Examiner's Action mailed December 4, 2002, please accept the following
remarks:

REMARKS

The Applicants have carefully considered this application in connection with the Examiner's
Action and respectfully request reconsideration of this application in view of the following remarks.

The Applicants originally submitted Claims 1-35 in the application. Claims 1, 4-5, 8-9, 11-14, 17, 20-24, 26-28 are currently pending in the application.

I. Rejection of Claims 1-28, under 35 U.S.C. §103

The Examiner has rejected Claims 1, 4-5, 11-14, 17, 22-24 and 28 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,853,601 to Krishaswamy *et al.* ("Krishaswamy") in view of U.S. Patent No. 6,093,330 to Chong *et al.* ("Chong") and further in view of U.S. Patent No. 5,998,861 to Nakaki *et al.* ("Nakaki"). The Examiner further rejected Claims 7, 10, 19 and 25 under 35 U.S.C. §103(a) as being unpatentable over Krishaswamy in view of Nakaki and further in view of U.S. Patent No. 6,093,330 to Chong *et al.* ("Chong"). The Examiner also rejected Claims 8, 20 and 26 under 35 U.S.C. §103(a) as being unpatentable over Krishaswamy in view of Nakaki and further in view of U.S. Patent No. 6,131,256 to Dydyk *et al.* ("Dydyk 256"). The Examiner also rejected Claims 9, 21 and 27 under 35 U.S.C. §103(a) as being unpatentable over Krishaswamy in view of Nakaki and further in view of U.S. Patent No. 5,424,698 to Dydyk *et al.* ("Dydyk 698").

The Applicants respectfully maintain that the claimed invention is not obvious in view of the foregoing combined references, and that the various combination of these references fail to establish a *prima facie* case of obviousness.

First, similar to that argued in the previous Office Action response filed on October 28, 2002, the combination of Krishaswamy, Chong, and Nakaki fails to teach or suggest all elements of independent Claims 1, 14 and 23. For example, the combination of Krishaswamy, Chong, and Nakaki fail to teach or suggest forming a plurality of opening on opposing sides and through the RF component at least to the semiconductor substrate, as recited in Claim 1, 14 and 23. In particular,

these references do not teach or suggest diameter ranges of about 0.5 to about 20 microns and ranges of substantially uniform spacing between adjacent openings of about 20 to about 200 microns, as recited in these claims. Rather, the combination of Krishaswamy (FIGURE 6) and Nakaki (FIGURE 1A) at most suggest forming two rectangular or L-shaped trenches, respectively, that extend substantially the length of the substrate. Likewise, Chong depicts two rectangular via channels 86, 88 that extend substantially the length of the substrate.

Second, one who is skilled in the art would not be motivated to form the openings in the way recited in the presently claimed inventions, because Krishaswamy teaches a very controlled process that requires an etch time of 125 minutes at an etch rate of about 0.8 microns per minute and performed in segments to prevent the photoresist etch mask from polymerizing. (Col. 3, lines 55-60, Col. 5, lines 59-67 and Col. 6, lines 1-10). Krishaswamy does not want a more rapid etch rate associated with forming a plurality of opening such as that specifically recited in the presently claimed inventions because Krishaswamy's photoresist etch mask would undesirably polymerize. It follows therefore that one skilled in the art would not be motivated to modify Krishaswamy by attempting to implement Chong's general remark that it is possible to form multiple structures of any desired spacing configuration or location. (Column 6, Lines 40-44) Additionally, as noted in the previous Office Action response, Nakaki, cited by the Examiner for the proposition of teaching etchant XeF_2 gas is not properly combinable with Krishaswamy because undue experimentation would be necessary to arrive at conditions, if any, that would allow etching of Krishaswamy's substrate without polymerizing Krishaswamy's photoresist.

Because the combination of Krishaswamy, Chong, and Nakaki does not teach or suggest all elements of independent Claims 1, 14 and 23 and are not properly combinable, they fail to establish

a *prima facie* case of obviousness with respect to independent Claims 1, 14 and 23 and their respective dependent claims.

III. Conclusion

In view of the foregoing remarks, the Applicants see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1, 4-5, 8-9, 11-14, 17, 20-24, 26-28.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

HITT GAINES & BOISBRUN, P.C.



Charles W. Gaines
Registration No. 36,804

Dated: 2/4/03
P.O. Box 832570
Richardson, Texas 75083
(972) 480-8800
Email: cgaines@abstractassets.com

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